

AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** An electric discharge gas laser comprising:
a laser body including
a housing capable of containing a gas capable of generating a laser ~~beam;~~ beam,
a rotating fan provided in said housing to circulate the gas in said housing, said rotating fan having a rotating ~~shaft;~~ shaft, and
a bearing device operable to magnetically support said rotating shaft in a floating condition, said bearing device including a sensor device comprising a sensor operable to sense the position of said rotating shaft relative to said bearing device to generate signals indicating the position of said rotating ~~shaft, and~~ shaft; and ~~a signal processor operable to receive and process the signals delivered from said sensor to output processed signals, and~~
a control device including
a signal processor operable to receive and process the signals delivered from said sensor to output processed signals, and
an exciting electric power control operable to receive the processed signals from said signal processor and to generate, on the basis of the processed signals, an electromagnet exciting current for controlling said bearing device,
wherein said signal processor is provided in said laser body and said exciting electric power control is separated from said laser body.
~~a control separated from said bearing device and functionally associated with said bearing device to receive the processed signals from said sensor device for controlling said bearing device on the basis of the processed signals.~~
2. **(Previously presented)** An electric discharge gas laser as set forth in claim 1, wherein said signal processor is operable to process the signals delivered from said sensor so as to output the processed signals at a predetermined level of sensitivity of said sensor device.

3. **(Previously presented)** An electric discharge gas laser as set forth in claim 2, wherein said signal processor includes a circuit operable to generate and deliver signals indicating a displacement of said rotating shaft from a target position thereof on the basis of the signals delivered from said sensor and a gain controllable amplifier operable to adjust an amplitude of the signals delivered from said circuit.